



## Declaration for Patent Application

Docket Number: 2132.0070002/DJF/TAD

As a below named inventor, I hereby declare that:

My residence, mailing address and citizenship are as stated below next to my name.

I believe I am an original, first and joint inventor of the subject matter that is claimed and for which a patent is sought on the invention entitled **Applications of Nano-Enabled Large Area Macroelectronics Substrates Incorporating Nanowires and Nanowire Composites**, the specification of which is attached hereto unless the following box is checked:

☒ was filed on September 30, 2003;  
as United States Application Number or PCT International Application Number \_\_\_\_\_; and  
was amended on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or (f) or § 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or § 365(a) of any PCT international application, which designated at least one country other than the United States of America, listed below, and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Applications(s):

Priority Claimed

\_\_\_\_\_  
(Application No.)

\_\_\_\_\_  
(Country)

\_\_\_\_\_  
(Day/Month/Year Filed)

☐ Yes ☐ No

\_\_\_\_\_  
(Application No.)

\_\_\_\_\_  
(Country)

\_\_\_\_\_  
(Day/Month/Year Filed)

☐ Yes ☐ No

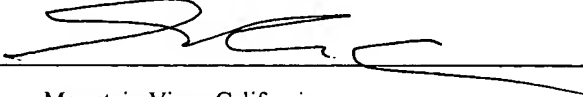
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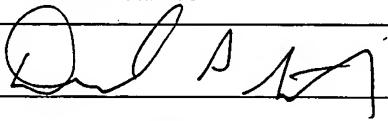
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.  
1100 New York Avenue, N.W.  
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Direct Telephone Calls to:

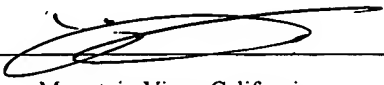
(202) 371-2600

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

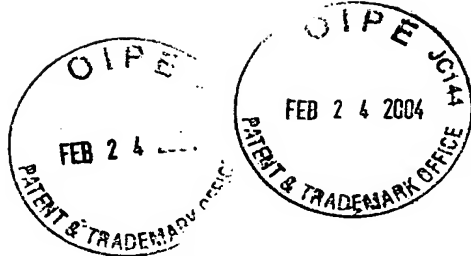
Full name of first Inventor:	Stephen Empedocles	
Signature of first Inventor:		Date: 1/21/04
Residence:	Mountain View, California	
Citizenship:	United States	
Mailing Address:	2507 Mardell Way Mountain View, California, 94043	

Full name of second Inventor:	David P. Stumbo	
Signature of second Inventor:		Date: 1/21/04
Residence:	Belmont, California	
Citizenship:	United States	
Mailing Address:	1561 6th Avenue Belmont, California, 94002	

Full name of third Inventor:	Chunming Niu	
Signature of third Inventor:		Date: 1/21/04
Residence:	Palo Alto, California	
Citizenship:	United States	
Mailing Address:	450 Loma Verde Avenue Palo Alto, California, 94306	

Full name of fourth Inventor:	Xianfeng Duan	
Signature of fourth Inventor:		Date: 1/21/04
Residence:	Mountain View, California	
Citizenship:	United States	
Mailing Address:	1200 Dale Avenue, Apt # 131 Mountain View, California, 94040	

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## POWER OF ATTORNEY FROM ASSIGNEE

Nanosys, Inc., a corporation of Delaware, having a principal place of business at Corporate Headquarters, 2625 Hanover Street, Palo Alto, California 94304, is assignee of the entire right, title, and interest for the United States of America (as defined in 35 U.S.C. §100), by reason of an Assignment to the Assignee executed on (1) 1/21/04; (2) 1/21/04; (3) 1/21/04 and (4) 1/21/04 of an invention known as **Applications of Nano-Enabled Large Area Macroelectronics Substrates Incorporating Nanowires and Nanowire Composites** (Attorney Docket No.2132.0070002/DJF/TAD), that is disclosed and claimed in a patent application of the same title by the inventors (1) Stephen Empedocles, (2) David P. Stumbo, (3) Chunming Niu and (4) Xianfeng Duan (said application filed on September 30, 2003 at the U.S. Patent and Trademark Office, having Application Number 10/674,071).

The Assignee hereby appoint the U.S. attorneys associated with **CUSTOMER NUMBER 28393** to prosecute this application and any continuation, divisional, continuation-in-part, or reissue application thereof, and to transact all business in the U.S. Patent and Trademark Office connected therewith, such attorneys currently being: Robert Greene Sterne, Esq., Registration No. 28,912; Edward J. Kessler, Esq., Registration No. 25,688; Jorge A. Goldstein, Esq., Registration No. 29,021; David K.S. Cornwell, Esq., Registration No. 31,944; Robert W. Esmond, Esq., Registration No. 32,893; Tracy-Gene G. Durkin, Esq., Registration No. 32,831; Michele A. Cimbala, Esq., Registration No. 33,851; Michael B. Ray, Esq., Registration No. 33,997; Robert E. Sokohl, Esq., Registration No. 36,013; Eric K. Steffe, Esq., Registration No. 36,688; Michael Q. Lee, Esq., Registration No. 35,239; Steven R. Ludwig, Esq., Registration No. 36,203; John M. Covert, Esq., Registration No. 38,759; Linda E. Alcorn, Esq., Registration No. 39,588; Lawrence B. Bugaisky, Esq., Registration No. 35,086; Donald J. Featherstone, Esq., Registration No. 33,876; Robert C. Millonig, Esq., Registration No. 34,395; Michael V. Messinger, Esq., Registration No. 37,575; Judith U. Kim, Esq., Registration No. 40,679; Timothy J. Shea, Jr., Esq., Registration No. 41,306; Patrick E. Garrett, Esq., Registration No. 39,987. The Assignees hereby grant said attorneys the power to insert on this Power of Attorney any further identification that may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

Send correspondence to:

Customer Number 26111  
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.  
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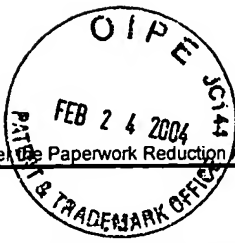
FOR: Nanosys, Inc.

SIGNATURE: *Matthew Murphy*

BY: Matthew Murphy

TITLE: V.P. Intellectual Prop.

DATE: 1/21/04



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PTO/SB/96 (08-03)  
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**STATEMENT UNDER 37 CFR 3.73(b)**

2132.0070002/DJF/TAD

Applicant/Patent Owner: Empedocles et al.

Application No./Patent No.: 10/674,071 Filed/Issue Date: September 30, 2003

Entitled: APPLICATIONS OF NANO-ENABLED LARGE AREA MACROELECTRONICS SUBSTRATES INCORPORATING NANOWIRES AND NANOWIRE COMPOSITES

Nanosys, Inc., a corporation  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by percentage) of its ownership interest is \_\_\_\_\_ %  
in the patent application/patent identified above by virtue of either:

A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☒ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

January 21, 2004  
Date

\_\_\_\_\_  
Telephone number

Matthew Murphy  
Typed or printed name  
Matthew Murphy  
Signature

V.P. Intellectual Prop.  
Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

## ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventors: (1) Stephen Empedocles, (2) David P. Stumbo, (3) Chunming Niu and (4) Xianfeng Duan, the undersigned inventors hereby sell and assign to Nanosys, Inc., a corporation formed under the laws of Delaware (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages, for the United States of America (as defined in 35 U.S.C. § 100) and throughout the world,

(a) in the invention(s) known as **Applications of Nano-Enabled Large Area Macroelectronics Substrates Incorporating Nanowires and Nanowire Composites** for which application(s) for patent in the United States of America has (have) been executed by the undersigned on (1) 1/21/04, (2) 1/21/04, (3) 1/21/04, (4) 1/21/04, (also known as United States Application No. 10/674,071, filed September 30, 2003), in any and all applications thereon, in any and all Letters Patent(s) therefor, and

RES  
1/21/04

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including non-provisional applications, continuing (continuation, divisional, or continuation-in-part) applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventors agree to execute all papers necessary in connection with the application(s) and any non-provisional, continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

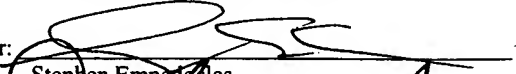
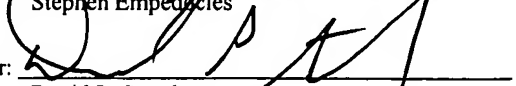

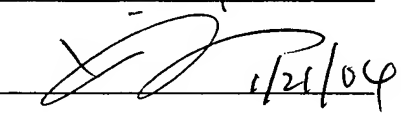
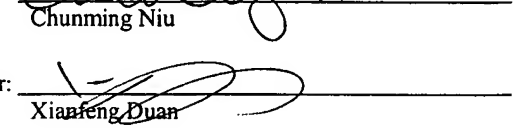
The undersigned inventors agree to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any non-provisional, continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

The undersigned inventors hereby represent that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

The undersigned inventors hereby grant Robert Greene Sterne, Esq., Registration No. 28,912; Edward J. Kessler, Esq., Registration No. 25,688; Jorge A. Goldstein, Esq., Registration No. 29,021; David K.S. Cornwell, Esq., Registration No. 31,944; Robert W. Esmond, Esq., Registration No. 32,893; Tracy-Gene G. Durkin, Esq., Registration No. 32,831; Michele A. Cimbala, Esq., Registration No. 33,851; Michael B. Ray, Esq., Registration No. 33,997; Robert E. Sokohl, Esq., Registration No. 36,013; Eric K. Steffe, Esq., Registration No. 36,688; Michael Q. Lee, Esq., Registration No. 35,239; Steven R. Ludwig, Esq., Registration No. 36,203; John M. Covert, Esq., Registration No. 38,759; Linda E. Alcorn, Esq., Registration No. 39,588; Lawrence B. Bugaisky, Esq., Registration No. 35,086; Donald J. Featherstone, Esq., Registration No. 33,876; Robert C. Millonig, Esq., Registration No. 34,395; Michael V. Messinger, Esq., Registration No. 37,575; Judith U. Kim, Esq., Registration No. 40,679; Timothy J. Shea, Jr., Esq., Registration No. 41,306; Patrick E. Garrett, Esq., Registration No. 39,987; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

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TO ASSIGNMENT BRANCH  
NOT FOR RECORDATION

IN WITNESS WHEREOF, executed by the undersigned inventors on the date opposite his/her name.

Date: <u>1/22/04</u>	Signature of Inventor: <u></u> Stephen Empedocles
Date: <u>1/21/04</u>	Signature of Inventor: <u></u> David P. Stumbo
Date: <u>1/21/04</u>	Signature of Inventor: <u></u> Chunming Niu
Date: <u> 1/21/04</u>	Signature of Inventor: <u></u> Xiaofeng Duan

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